

WHAT IS CLAIMED IS:

1 An assembly for supporting a mask frame to a stud of a panel in a cathode ray tube
2 having a longitudinal tube axis, comprising:

3 said mask frame having a rectangular rim disposed in parallel with said tube axis, having a
4 flange vertically extending from a rear end of said rectangular rim toward said tube axis and
5 perpendicular to said tube axis;

6 a shadow mask having a skirt fixed on an inside surface of a front end of said rectangular
7 rim, having a first plane perpendicular to said tube axis and passing a central surface of said shadow
8 mask;

9 a bracket having a suspending arm joined by a connecting arm to a fixing arm, said
10 suspending arm and said fixing arm spaced apart from each other and disposed in parallel with said
11 tube axis;

12 said suspending arm being provided with a hole coupled to said stud;

13 said fixing arm fixed on an outside surface of said rectangular rim of said mask frame; and

14 said connecting arm having a second plane substantially parallel to said first plane of said
15 shadow mask and spaced apart from said first plane of said shadow mask by a first distance, said
16 first distance being greater than a second distance between said first plane of said shadow mask and
17 a third plane passing a center line of said stud.

1 2. The assembly of claim 1, wherein said connecting arm is perpendicular to both said
2 fixing arm and said suspending arm.

1 3. The assembly of claim 2, said connecting arm having a length of about 5-40 mm.

1 4. The assembly of claim 1, said connecting arm having a characteristic for absorbing
vibration transmitted from both said mask frame and said panel and offsetting the vibration.

1 5. The assembly of claim 1, wherein said suspending arm, said connecting arm, and
2 said fixing arm are made in a single body and a flat plate.

1 6. The assembly of claim 1, said connecting arm being wave-shaped.

2 7. The assembly of claim 1, said suspending arm and said fixing arm being flat plates
3 spaced apart from each other by about 5-40 mm.

1 8. The assembly of claim 1, further comprising a bent formed between said suspending
2 arm and said connecting arm and being round.

1 9. The assembly of claim 1, said flange of said mask frame placed on said second plane
2 of said connecting arm.

1 10. The assembly of claim 1, said skirt of said shadow mask being closer to said third
2 plane of said stud than said second plane of said connecting arm.

1 11. An assembly in a picture tube having a longitudinal tube axis, comprising:
2 a mask frame being a rectangular rim parallel to said tube axis;
3 a shadow mask having a skirt fixed on an inside surface of said rectangular rim, having a first
4 plane perpendicular to said tube axis and passing a central surface of said shadow mask;
5 a stud formed on and extending inwardly from a sidewall of a panel of said picture tube;
6 a bracket having a suspending arm joined by a connecting arm to a fixing arm, being made
7 in a single body, said suspending arm and said fixing arm being flat plates and parallel to each other;
8 said fixing arm fixed on an outside surface of said rectangular rim of said mask frame
9 opposite to said shadow mask while said suspending arm coupled to said stud; and
10 said connecting arm having a second plane substantially parallel to said first plane and
11 spaced apart from said first plane by a first distance greater than a second distance between said first
12 plane of said shadow mask and a third plane passing a center line of said stud.

1 12. The assembly of claim 11, said suspending arm and said fixing arm being parallel
2 to said tube axis and perpendicular to said connecting arm.

1 13. The assembly of claim 11, said connecting arm being U shaped

1 14. The assembly of claim 11, said connecting arm being wave shaped.

1 15. The assembly of claim 11, said connecting arm having a characteristic for absorbing
2 vibration transmitted from both said panel and said mask frame and offsetting said vibration.

1 16. The assembly of claim 11, said connecting arm and said fixing arm being right-
angled to each other.

1 17. The assembly of claim 11, said bracket having a bent formed between connecting
2 arm and any one of said suspending arm and said fixing portion.

1 18. The assembly of claim 11, said connecting arm having a length of about 5-40 mm.

1 19. The assembly of claim 11, said suspending arm and said fixing arm being spaced
2 apart from each other by about 5-40 mm.

1 20. The assembly of claim 11, said bracket having an opening formed between free ends
2 of said suspending arm and said fixing arm, said opening opposite to said connecting arm, said stud
3 disposed between said opening and said connecting arm.